

MARRERO PLANT HISTORY

Johns-Manville started operations in Louisiana in 1924 in Gretna, La. by leasing a warehouse 100' x 500' at Second and Derbigny Streets. Improvements were made to the building in February 1925 and the first shingles were produced on March 1, 1925. At that time we had Three Shingle Machines, Four Hand Punch Presses, and one Ridge Roll Machine. We had a Storeroom 25' x 25', Machine Shop 50' x 25', consisting of One 16"x8" Lathe, Two Drill Presses, One Sharpener, One Power Saw and One Grinder.

In 1925 the Plant personnel consisted of 90 people - 4 on the Salaried Payroll and 86 on the Hourly Payroll. The first Plant Manager was C. R. Wikel who was replaced by R. B. Murphy in 1929. The first Traffic Manager was Nester Coffee who was replaced by E. Belsom in 1925. The first Office Manager was J. G. Vincent and the first Stenographer was Ethel Tutwiler, who was replaced by S. E. Stumpf in 1928.

We were producing two types of Asbestos Roofing Shingles at that time. #70's and #35's. Our output was 500 squares on a 10-hour per day operation using the Plate Method. On the Ridge Roll Operation, our output was 2500 feet per day.

In 1935 we purchased 60.7 acres of land in Marrero and had our first manufacturing building under construction in 1936. The first building to be completed included the Paint Shop and Boiler House and it measured 150' x 800'. We transferred the Shingle Equipment and installed the Roofing Machine in August 1936. Both operations started in September 1936. In 1942 we completed an addition of 300' x 150' for storage of raw materials. In 1951 we completed an addition of 260' x 150' for finished goods storage. At that time the building contained 204,000 square feet.

In 1936 the Plant Personnel consisted of 200 people - 18 salaried employees and 182 hourly employees.

In 1946 the Company expanded its facilities to include the manufacturing of Transite Pipe. This building was completed in 1947 and measured 840' x 150'. At the same time the present Office Building and Parking Area were completed.

In 1957 Floor Tile Production facilities were added to the Marrero location. Approximately 30MM sq. ft. of Vinyl Asbestos and Asphalt Floor Tile was produced annually. Employment complement in this operation amounted to 110 hourly and salary personnel.

In 1957 total Plant Personnel consisted of 773 people. One Hundred and Twenty-three Salaried Employees and Six Hundred and Fifty Hourly Employees.

In April 1970 the Floor Tile Plant was shutdown and in that same year, October the Transite Pipe Plant was shutdown. In 1975 our hourly and salary work force consisted of 29 salary and 156 hourly personnel.

On February 1, 1976, the Asbestos Shingle operation was discontinued and this left us with only the Asphalt Roofing and Water Proof and Paint Production Department. Our present work force consists of 27 salaried personnel and 144 hourly personnel.



ecology and environment, inc.

11550 NEWCASTLE AVENUE, BATON ROUGE, LOUISIANA 70816, TEL. (504) 291-4698
International Specialists in the Environment

CERCLIS# LAD985170711
CASE# FY90-1364

DATE: July 30, 1996

TO: John Martin, TM
EPA Region 6, Response and Prevention Branch

THRU: Henry Thompson, Jr., PO
EPA Region 6, Program Management Branch

THRU: Chris Quina, STL
Region 6, Superfund Technical Assessment and Response Team

FROM: Troy M. Naquin
Region 6, Superfund Technical Assessment and Response Team

SUBJ: Removal Assessment - Final Report: Westbank Asbestos
Marrero, Jefferson Parish, Louisiana
TDD#: S06-9601-033 (previously TDD# T06-9511-010)
PAN: 003501SFXX
LAT 29°53'58"N, LONG 90°06'45"W

I. INTRODUCTION

The Westbank Asbestos (WBA) site is located on the westbank of the Mississippi River near the City of New Orleans, Louisiana. The site includes residential and commercial properties contaminated with asbestos in the Jefferson Parish communities of Bridge City, Westwego, Marrero, Harvey, and Gretna and the Orleans Parish community of Algiers (Interim Report No. 2 - Attachment A). The source of the asbestos contamination was from the Johns-Manville plant located in Marrero, Jefferson Parish, Louisiana. The geographic coordinates near the south entrance to the former Johns-Manville plant (corner of 4th and Pine streets) resides at Latitude 29°53'58" North, Longitude 90°06'45" West, as scaled from the United States Geological Survey (USGS) New Orleans East and New Orleans West quadrangle, 7.5 minute series topographic maps. For these maps the scale is 1:24,000 and is in the North American Datum - 27 (NAD-27).

S06-9601-033

On November 11, 1995, the EPA Region 6 Response and Prevention Branch (RPB) tasked the Technical Assistance Team (TAT) contractor to conduct site assessment activities at the WBA site under Technical Direction Document (TDD) No. T06-9511-010. TAT was directed to: coordinate with state and local officials as appropriate; evaluate current site conditions; conduct an extent of contamination survey for asbestos; estimate waste volumes; generate AutoCad and/or Graphic Information System (GIS) site maps; draft approach and procedures for conducting a Human Health Risk Assessment (HHRA); evaluate mitigation options for technical viability, effectiveness, and cost; and coordinate with the EPA On-Scene Coordinator(OSC)/Task Monitor (TM) John Martin. Due to a change in the EPA technical assistance contract in early 1996, assigned tasks were continued under the Superfund Technical Assessment and Response Team (START) contract under replacement TDD No. S06-9601-033 issued on January 22, 1996. On April 4, 1996, EPA TM Martin assigned additional specific elements to the TDD which included: procure analytical services for 60 bulk samples for asbestos analysis by polarized light microscopy (PLM) and 30 soil samples for asbestos analysis by transmission electron microscopy (TEM); develop a Sampling Quality Assurance/Quality Control (QA/QC) Plan for the collection and analysis of bulk and soil samples; implement Sampling QA/QC Plan; and submit an interim report by May 7, 1996, to include analytical results of bulk and soil sampling, a site location map, and calculations of removal cost estimates. On May 20, 1996, EPA TM Martin determined that drafting an approach and procedures for conducting the HHRA would not be needed at this time and verbally stopped-work on that task. On May 28, 1996, EPA TM Martin tasked START to submit a second interim report by June 14, 1996, to include results of all tasks and information collected to date.

This current deliverable represents the final report and includes a synopsis of work activities conducted from June 14, 1996 through July 29, 1996. All work activities conducted prior to June 14, 1996 were discussed in two interim reports previously submitted to the EPA. The May 2, 1996 Removal Assessment - Interim Report No. 1 is provided as Attachment A and the June 14, 1996 Removal Assessment - Interim Report No. 2 is provided as Attachment B to this report.

II. BACKGROUND

Asbestos is a naturally occurring mineral that was utilized in a wide variety of industrial products. Asbestos represents a group of silicate minerals that readily separates into thin, strong fibers that are flexible, heat resistant, and chemically inert. Asbestos minerals are divided into two groups that are distinguished by their crystalline structures. These groups include: serpentine minerals that have a sheet or layered structure; and amphiboles that have a chain-like structure. Serpentine minerals consists of chrysotile which is the most commonly used type of asbestos and accounts for approximately 95% of asbestos used in manufacturing. Amphibole minerals consists of five types of asbestos which include: amosite, crocidolite, anthophyllite, tremolite, and actinolite. Health studies have showed that exposure to amosite and crocidolite asbestos, due to their short, rigid, fibrous nature, results in the greatest potential risk of contracting an asbestos-related disease. The WBA site consists of asbestos waste material contaminated with chrysotile and crocidolite fibers.

S06-9601-033

000305

Background information for the WBA site was gathered from the Louisiana Department of Environmental Quality (LDEQ) and interviews conducted in the field with local residents and former employees of the Johns-Manville plant. The WBA site consists of residential and commercial properties contaminated with asbestos in the Jefferson Parish communities of Bridge City, Westwego, Marrero, Harvey, and Gretna and the Orleans Parish community of Algiers. The source of the asbestos was from a Johns-Manville plant that operated in Marrero, Jefferson Parish, Louisiana. The plant consisted of many operation and manufacturing buildings located on 56 acres of land (Interim Report No. 2 - Attachment B). The plant is bordered by the Mississippi River to the north, commercial facilities to the west, and residential communities to the south and east. The residential communities surrounding the plant in the westbank area are the focus of this investigation. The 1995 population of the westbank communities as stated in *The Source of Zip Code Demographics, 10th Edition*, includes: Westwego - 11,163; Marrero - 63,025; Harvey - 37,234; and Gretna - 57,112. The 1990 federal census lists the population of Bridge City at 8,327 and population within the area of concern in Algiers as 5,611.

Johns-Manville operated the plant in Marrero from 1929 to 1975 which produced various types of asbestos-containing products. These products included an asphalt roofing tile, several varieties of transite materials, and other asbestos-containing products. An asbestos-containing aggregate was generated as a by-product during manufacturing operations. The aggregate was pulverized in a hammer mill and mixed with a filler, usually composed of gypsum, dolomite, or calcite, to form a stable road-bed-like material. This asbestos-containing material (ACM) was then offered to local residents, free-of-charge, for construction of driveways, servitudes, walkways, and other areas. Consequently, many of these areas in the residential communities surrounding the Johns-Manville plant contain ACM waste. The ACM is visually recognizable by its light bluish-grey, cementitious texture. No records are currently available concerning the quantity of ACM and the exact time period in which the ACM was distributed to the public. The ACM waste was also disposed of by Johns-Manville at two landfills located near the plant in Marrero. One of the landfills is located on the westbank of the Mississippi River, across River Road, north of the plant, and the other landfill is located on LaPalco Boulevard. The ACM was transported to these locations by truck and dumped into the landfills. The landfills have been closed, but no information is currently available concerning their closure. An evaluation of these landfills is not included within the scope of this investigation.

Previous investigations at the WBA site included a sampling mission conducted by the LDEQ on January 12, 1990. This investigation involved the collection and analysis for asbestos of 10 bulk samples from various residential locations and one air sample using a hi-volume sampler. The portable hi-volume air sampler was positioned approximately 6 to 8 feet above ground surface on a small building at a Texaco facility on River Road. The air sampler was set at a flow rate of 28 cubic feet per minute (ft^3/min) for approximately 188 minutes. Analysis of the air sample revealed 3×10^{-7} fibers per cubic centimeter (f/cc) which is below the established EPA and Occupational Safety and Health Administration (OSHA) action level of 0.1 f/cc . Analyses of the ACM bulk samples indicated the material contained up to 60% chrysotile and crocidolite asbestos fibers. The analytical results from the LDEQ investigation is presented in the site assessment report submitted to the EPA on September 27, 1991, under TDD No. T06-9010-54.

S06-9601-033

CASE# FY90-1364

SITE ASSESSMENT REPORT
FOR
WESTBANK ASBESTOS
MARRERO, JEFFERSON PARISH, LOUISIANA

*Attachments
C-L not
included.*

September 27, 1991

Prepared for:

J. Chris Petersen
Deputy Project Officer
Emergency Response Branch
EPA - REGION 6

Contract Number: 68-WO-0037



ecology and environment, inc.

12021 LAKELAND PARK BOULEVARD, BATON ROUGE, LOUISIANA 70809, TEL. (504) 291-4698
International Specialists in the Environment

recycled paper

LSC005498



ecology and environment, inc.

12021 LAKELAND PARK BOULEVARD, BATON ROUGE, LOUISIANA 70809, TEL. (504) 291-4598
International Specialists in the Environment

CASE# FY90-1364

Date: September 27, 1991

To: John Martin, OSC
EPA Region 6, Emergency Response Branch

Thru: J. Chris Petersen, DPO
EPA Region 6, Emergency Response Branch

Thru: Kishor Fruitwala, TATL
Region 6, Technical Assistance Team

From: Troy M. Naquin
Region 6, Technical Assistance Team

Subj: Westbank Asbestos
Marrero, Jefferson Parish, Louisiana
TDD# T06-9010-54C
PAN# ELA0375SA

I. INTRODUCTION

On February 6, 1990, Louisiana Department of Environmental Quality (LDEQ) contacted EPA Region 6 Emergency Response Branch (ERB) for assistance in investigating a potential asbestos health hazard in Jefferson Parish, Louisiana, near the westbank of New Orleans. The potential asbestos hazard involved residential areas located in the cities of Westwego, Marrero, and Harvey. On this same day, ERB contacted EPA Technical Assistance Team (TAT) to provide technical assistance and resources for addressing the asbestos problem to LDEQ.

On February 16, 1990, a Technical Direction Document (TDD) was issued to TAT to conduct a site assessment of the Westbank Asbestos site. Specific elements on the TDD include: 1) gather pertinent information from state and local authorities who had begun the investigation, 2) contact local government agencies to obtain historic aerial photographs, 3) develop a

T06-9010-54C

recycled paper

LSC005499

Sampling Quality Assurance/Quality Control Plan (QASP) addressing air and bulk sampling, 4) coordinate with state and local authorities to track all potential sites including location, areas of asbestos, and degree of threat, 5) locate a certified laboratory to analyze the samples, 6) generate polreps and photodocument sites and activities, and 7) consult with and brief OSC.

II. BACKGROUND

Between 1955 and 1965, a Johns-Manville plant operated in Marrero, Jefferson Parish, Louisiana. The plant produced various types of asbestos containing products with the principal product being asphalt roofing material. An asbestos containing material (ACM) by-product was generated by the plant. The by-product, in aggregate form, was pulverized in a hammer mill and mixed with a filler to form a stable roadbed-like material. The asbestos containing aggregate was offered to local residents for driveway construction at no charge.

On February 8, 1990, a meeting with EPA, TAT, LDEQ, and the Louisiana Department of Health and Hospitals (DHH) was held to discuss the Westbank Asbestos project (Attachment I). The Westbank is defined as the portions of Jefferson and Orleans Parishes on the westbank of the Mississippi River (Attachment A). LDEQ informed EPA and TAT that they had collected 10 bulk samples and one air sample from different locations in the westbank area. The samples were analyzed by LDEQ laboratory using the Polarized Light Microscopy (PLM) method and found the ACM to contain two species of asbestos: Crysotile and Crocidolite. The results of LDEQ's samples are found in Table 1. LDEQ requested EPA to determine if any defined public health endangerment existed from ACM located in roadways and residential properties. LDEQ also requested EPA to assess the abandoned Johns-Manville landfill located on the westbank of the Mississippi River for potential water contamination (Attachment A). EPA informed LDEQ that they would conduct a reconnaissance, and collect all available data for the site before offering LDEQ advice on the situation. The site was defined to include the Johns-Manville plant, landfills, associated roadways, and residences.

III. ACTIONS TAKEN

Reconnaissance

TAT conducted drive-by inspections and photodocumentation of the Westbank Asbestos site on February 8, and 28, and March 7, and 8, 1990. The inactive Johns-Manville plant (Photographs 1 - 7) is located on River Road in Marrero, La. Adjacent to the west end of the plant was an active pipeyard which was constructed on top of an abandoned Johns-Manville landfill. TAT

TABLE 1
LDEQ Analytical Results

Bulk Sample Results

Sample #	Location	Avg. Chrysotile %	Avg. Crocidolite %	Total Asbestos %	Remainder %*
1	829 Shipley St	27	18	45	55
2	710 Shipley St	26	27	53	47
3	424 Wilson St	9	23	32	68
4	45 Saddler St	17	25	42	58
5	516 Meyers St	26	28	54	46
6	631 Eiseeman St	22	23	45	55
7	540 Westwood St	11	21	32	68
8	555 Avenue A	27	29	56	44
9	4th Street	18	27	45	55
10	500 Avenue B	30	20	50	50

* Non-Fibrous and non-asbestos fibers

Air Sample Results

Sample #	Location	Results
90-01-22	4th Street	.000003 fiber/cc of air or .0003% asbestos

observed possible ACM outcropping in the ditch below the pipeyard along River Road (Photograph 33 - 36). North of the plant on the batture was another landfill used by Johns-Manville (Photograph 8 - 14). This fenced landfill was heavily vegetated and posted with asbestos warning plaques (Photograph 15). LDEQ informed TAT that a municipal water intake for the city of Marrero was located 0.5 miles downstream from the landfill on the westbank of the Mississippi River. TAT and LDEQ noted that the landfill was inundated with several feet of water during a high flood stage, and the fence had an open gate at the southeast corner (Photograph 20 - 21).

EPA and TAT investigated an inactive landfill located on LaPalco Boulevard which was once utilized by Johns-Manville. The unfenced site was heavily vegetated and contained household garbage. TAT observed potential ACM at the surface of the landfill which appeared to be in three main forms: 1) a black, asphalt-like material, 2) a light gray to off white, fibrous material, and 3) variegated transite floor and siding tiles (Photograph 29 - 32). Residential communities and businesses are located around the perimeter of the landfill.

During the reconnaissance of the cities of Westwego, Marrero, and Gretna, TAT observed ACM in the driveways of the residences which had a light to medium gray, cementitious appearance (Photographs 16 - 19) and in some areas appeared to be one to three inches thick (Photograph 22). Found mixed in with the ACM were various asbestos products such as transite pipe (Photograph 23). The extent of ACM contamination was undetermined by LDEQ and TAT during the drive-by inspections.

On February 23, 1990, TAT met with LDEQ Analysis Program Manager, Bob Hannah, and LDEQ representative, Steve Scarborough, to plan an air sampling mission to be conducted at the Westbank Asbestos site. After the meeting, TAT and LDEQ visited the site to choose locations for air sampling of airborne asbestos fibers, and conduct further photodocumentation of the site. TAT recommended three air sampling locations in Marrero: 500 Avenue B (Photographs 24 - 25), 516 Meyers Street (Photographs 26 - 27) and 631A Eiseman Street (Photograph 28) (Attachment B).

Sampling

It was agreed by all parties that the EPA Emergency Response Team (ERT) Standard Operating Procedures (SOP) guidelines for Outdoor/Ambient Air Sampling for Asbestos would be used for the sampling mission (See QASP Attachment 2). TAT developed a QASP for the air sampling mission (Attachment J) and procured the necessary air sampling equipment. Gilian Aircon 520 High Volume Air Samplers (Photograph 37) were used to perform the air sampling at a flow rate of approximately 15 liters/minute. Each sampler was pre- and post-calibrated with a Gilian Gilibrator (Photograph 38). Samples were collected on 37mm diameter air sampling cassettes with

0.8 micron mixed cellulose ester filters. Sampling stations were arranged at each of the three sites with two upwind and two downwind stations, and one background station in relation to wind direction and location of the ACM. Sampling methodologies and quality assurance/quality control measures are detailed in the QASP.

On March 7, 1990, sampling for airborne asbestos began at the Westbank Asbestos site. Weather conditions during the sampling were partly cloudy skies, temperature in the upper 70's to low 80's, relative humidity 50 - 55%, and predominantly southeasterly winds at 18 - 25 miles per hour. Air sampling was conducted at 500 Avenue B in Marrero (Photographs 39 and 41) on March 7, 1990. The ACM was located at the rear of the house in the driveway (Photograph 40). On March 8, 1990, the residence at 516 Meyers St. (Photograph 42) in Marrero was sampled for airborne asbestos (Photographs 46-48). The ACM was located in the driveway (Photograph 43) and in the back yard (Photograph 44). The ACM in the driveway appeared to be 0.5 - 0.75 inches thick (Photograph 45). A light drizzle started near the end of the sampling period, although, the sample time was sufficient to allow TAT to collect valid samples for analysis. On March 9, 1990, air sampling was conducted at 631A Eiseman St. (Photograph 49) in Marrero, when a heavy rainfall began and suspended sampling at this site. The sampling period was not long enough for valid samples to be collected; therefore, the samples were discarded. Analytical results of the air sampling conducted revealed all samples to be below the detection limit and the established EPA action level of 0.1 fibers/cc, which is one-half the Occupational Safety and Health Administration (OSHA) standard for an 8 hour time weighted average (TWA) (Table 2).

TABLE 2

Summary of Westbank Asbestos Analytical Results

Results of Phase - Contrast Microscopy Analysis

Sample ID	Fibers /c.c. Observed	No. of Fields Observed	Fibers Per Filter	Volume of Air (Liters)	Fibers /c.c. Per c.c. of Air
GH-01	1	100	490	3587	<0.001*
GH-02	4	100	1962	3551	<0.001
GH-03	2	100	981	3592	<0.001
GH-04	1	100	490	3557	<0.001
GH-05	2	100	981	3592	<0.001
GH-06	0	100	<490	3601	<0.001
VM-07	0	100	<490	3445	<0.001
VM-08	0	100	<490	3442	<0.001
VM-09	2	100	981	3453	<0.001
VM-10	4	100	1962	3449	<0.001
VM-11	1	100	490	3429	<0.001

* Quantitation limit is 0.001 fibers/c.c. of air

Results of Transmission Electron Microscopy Analysis

Sample ID	Analytical Results
GH-02	Unable to analyze due to high amount of particulate matter
GH-05	Below Detection Limit
VM-10	Below Detection Limit

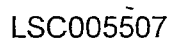
ATTACHMENTS:

- A. Site Locations Map
- B. Site Sketches (3 Pages)
- C. Photolog
 - 1. Panorama (8 Pages)
 - 2. Regular (18 Pages)
- D. Aerial Photograph
- E. Unused Photographs and Negatives
- F. Records of Communication (51 Pages)
- G. Copy of Logbook (Pages 1 - 45)
- H. Polrep #1
- I. Project Meeting Attendance Sheet
- J. Sampling QA/QC Plan (60 Pages)
- K. Copy of Original TDD# T06-9002-08 and Amendment A under Contract #68-01-7368 (3 Pages)
- L. Copy of TDD# T06-9010-54 and Amendments A, B, and C (6 Pages)

ATTACHMENT A
Site Locations Map

T06-9010-54C

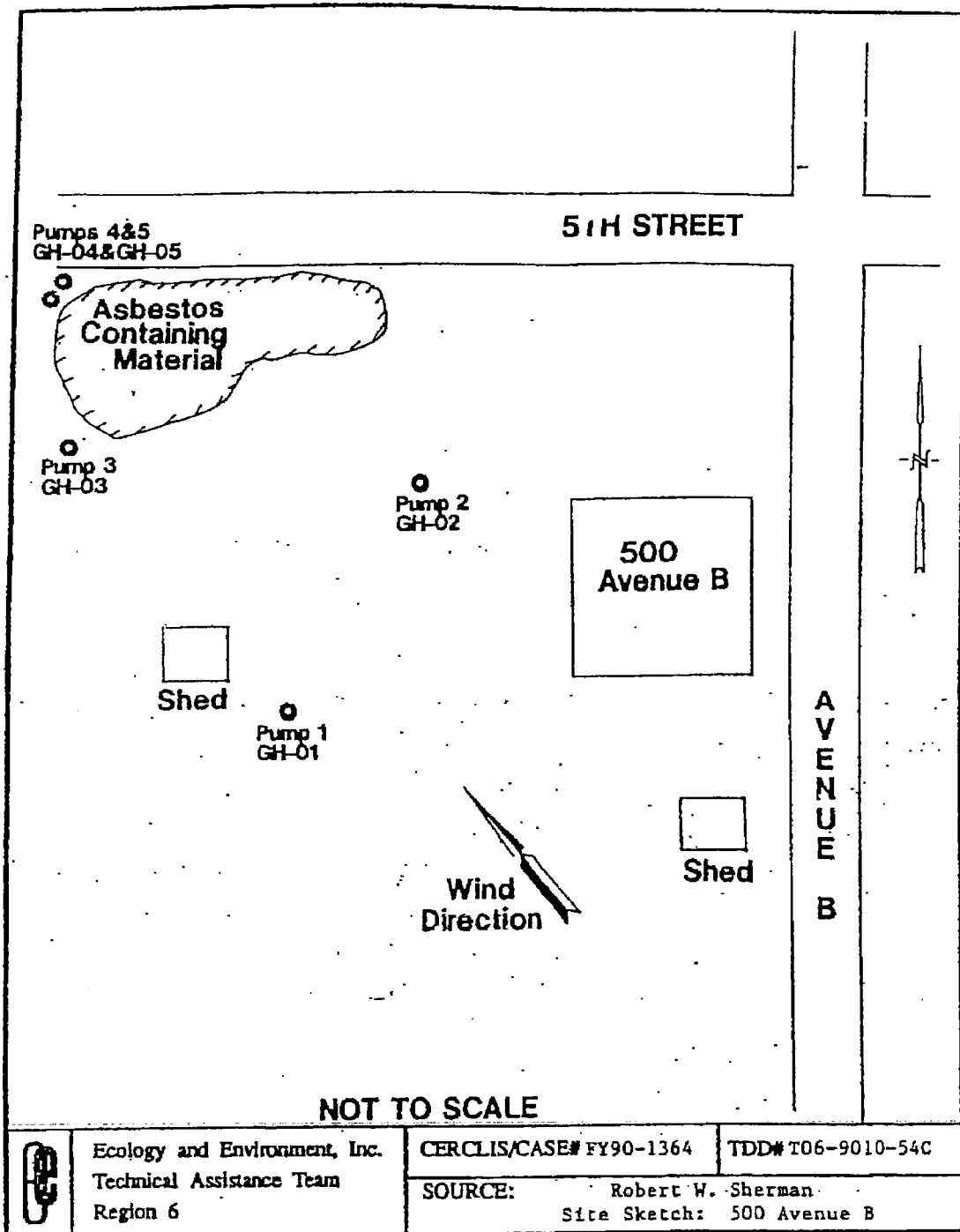
LSC005506

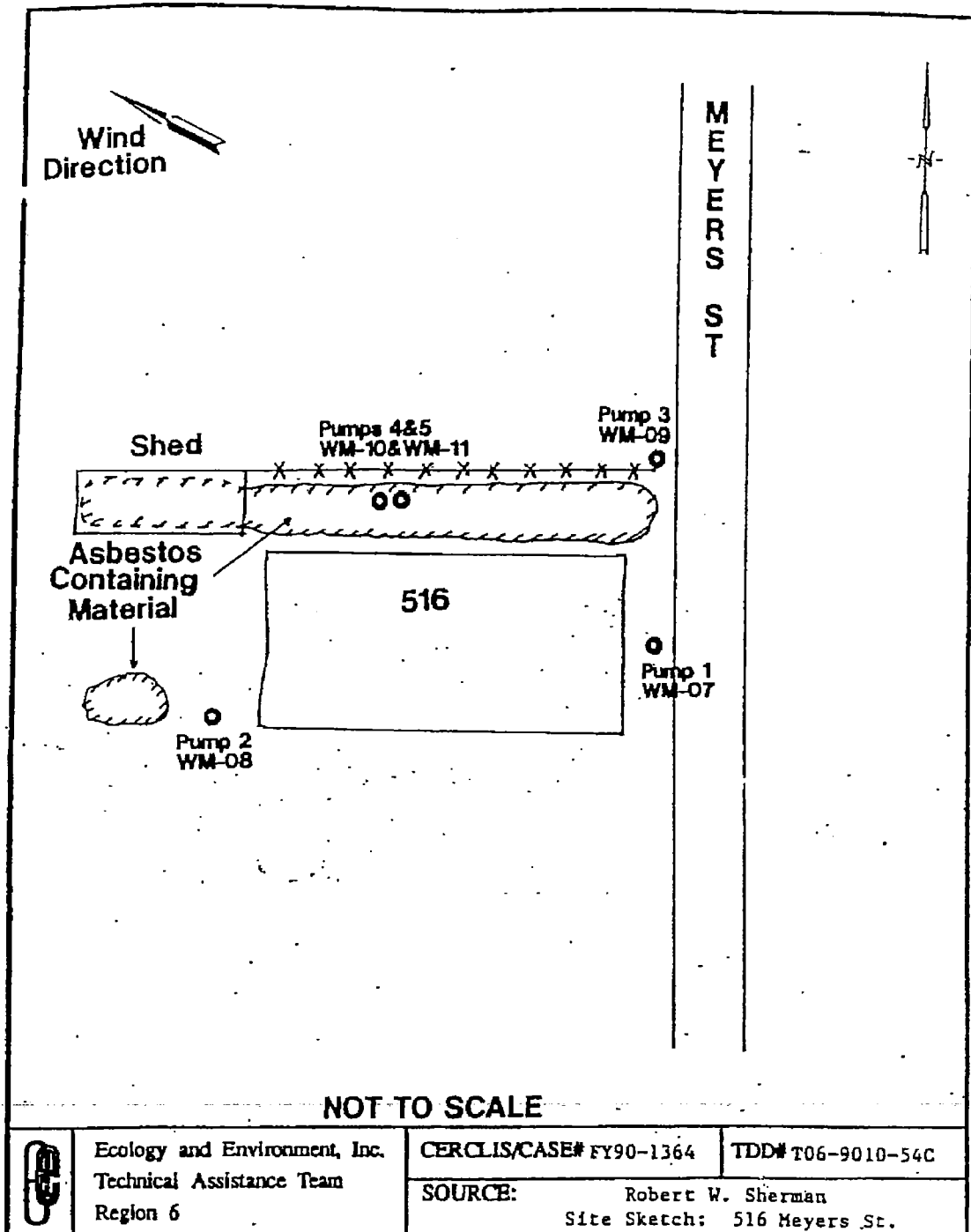


**ATTACHMENT B
Site Sketches
(3 Pages)**

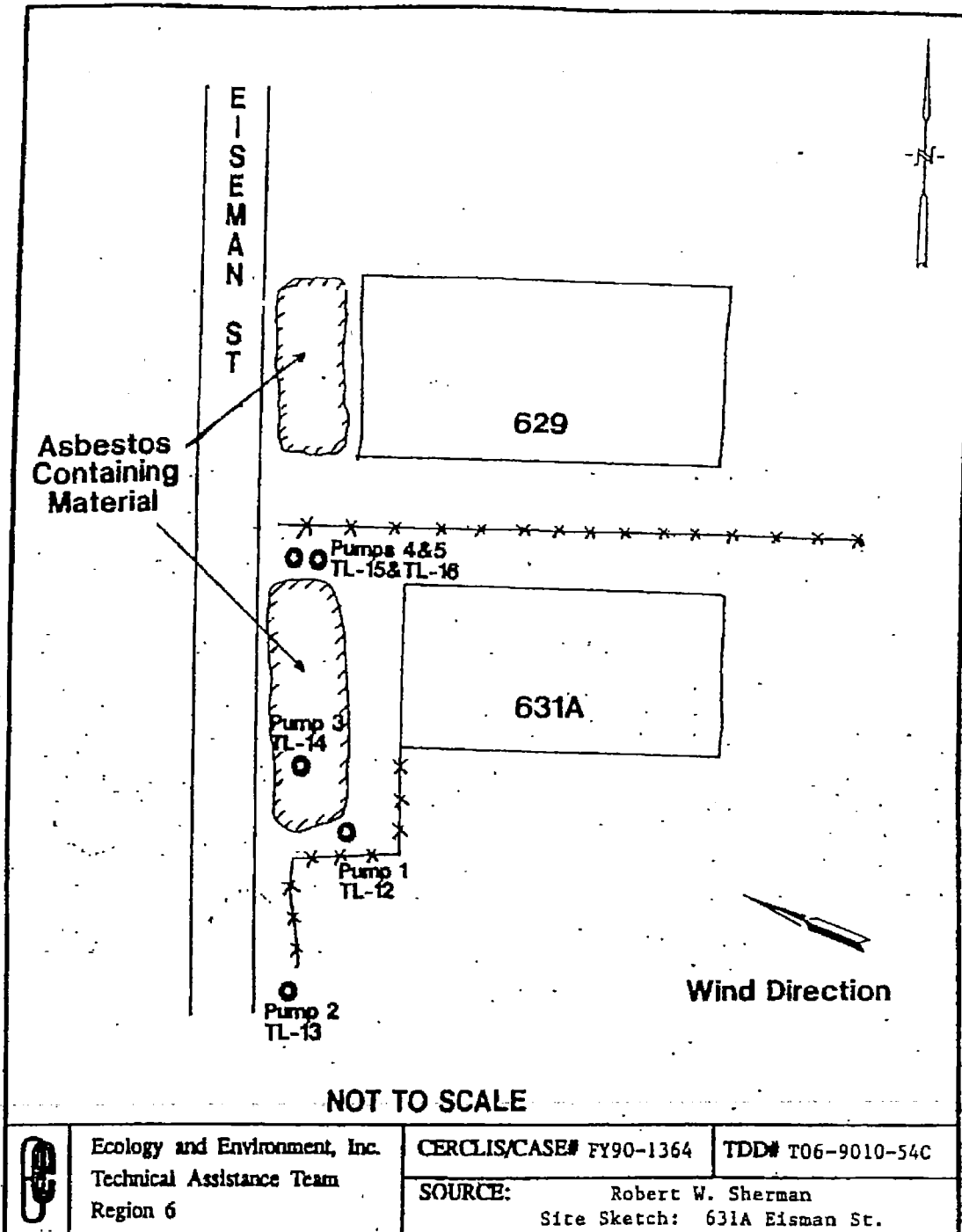
T06-9010-54C

LSC005508





LSC005510



LSC005511